

WHAT IS CLAIMED IS:

1. A light-emitting display device comprising:
a substrate;
light-emitting layers constituting pixels on a surface
of the substrate, light emission from the pixel being
electrically controlled;
barriers delimiting at least one side of each pixel
respectively,
wherein, on the surface of the substrate, at least part
of a region that corresponds to each pixel has
irregularities for light scattering, the difference between
the maximum height and the minimum height of the
irregularities being at least 0.4 μm , and
the barriers and the irregularities are formed directly
in the substrate material.

2. A light-emitting display device comprising:
a substrate;
light-emitting layers constituting pixels on a surface
of the substrate, light emission from the pixel being
electrically controlled;
switching element being provided for each pixel to
control the light-emission from the light-emitting layer in
the pixel;

barriers delimiting at least one side of each pixel respectively,

wherein, the switching elements are placed on the tops of the barriers on the surface of the substrate, and at least part of a region that corresponds to each pixel has irregularities for light scattering, the difference between the maximum height and the minimum height of the irregularities being at least 0.4 μm .

3. The light-emitting display device according to claim 2, wherein the barriers are disposed to form a grid, each switching element is disposed near each intersection of the grid, and scanning bus lines and orthogonal data bus lines are disposed on the lateral barriers and longitudinal barriers.

4. The light-emitting display device according to any one of claims 1 or 2, wherein the barriers and the irregularities are formed by sandblasting.

5. The light-emitting display device according to any one of claims 1 or 2, wherein the side walls of each barrier are tapered from the top to the bottom.

6. The light-emitting display device according to any

one of claims 1 or 2, further comprising planarization layers between the substrate with the irregularities and light-emitting layers, the refractive index of the planarization layers differing from that of the substrate.

7. The light-emitting display device according to claim 6, further comprising electrode layers on the planarization layers, the refractive index of the planarization layers being greater than that of the electrode layers.

8. A method for making a light-emitting display device according to any one of claims 1 or 2, comprising the steps of:

forming a mask pattern on a surface of a substrate, the mask pattern corresponding to the pattern of barriers to be formed;

spraying first sandblasting particles onto the surface of the substrate to chip off the exposed regions not covered by the mask pattern for forming grooves with a depth corresponding to the height of the barriers; and

spraying second sandblasting particles smaller than the first sandblasting particles to form irregularities for light scattering on the side walls and bottoms of the grooves, the difference between the maximum height and the

minimum height of the irregularities being at least 0.4 μm .

9. A method for making the light-emitting display device according to claim 2, comprising:

 sandblasting the substrate for forming the barriers and the irregularities; and

 at least one patterning process for a material included in the structure of the switching elements after forming the barriers and the irregularities,

 wherein edges of the barriers and sharp peaks of the irregularities are rounded with the patterning process.

10. The method for making the light-emitting display device according to claim 9, wherein the sandblasting step for forming the barriers and the irregularities is performed after a formation of the uppermost insulating layer and during a patterning step of the uppermost insulating layer, and the edges of the barriers and the sharp peaks of the irregularities are rounded with the patterning process.